

ABSTRACT OF THE DISCLOSURE

Substrate loading and unloading apparatus for automated loading and unloading of substrates (S) in a vacuum environment, for example the work region (A) of an electron beam lithography machine, comprises a substrate holder (13) with a substrate support table (17) and locating means (18 to 21) co-operable with the table to cause a supported substrate (S) to be pressed against and thereby located on the table (17). A vacuum vessel (10) defines a loading and unloading chamber (11) with a transfer port (12) which is communicable with the evacuated region (A) of the machine and permits transfer of the holder (13) between the chamber (11) and the region (A) entirely within the vacuum environment. Release means (22, 23; 28 to 33) are present to withhold the co-operation of the table and locating means and to provide a temporary substrate support clear of the table so that substrates can be transferred to and from the table. The temporary support can be provided by support pins (28) which may additionally be rotatable for fine adjustment of the substrate angular position.

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